marrow, immature and not an adult lymphocyte, is the one which proliferates, and by casting elements into the blood, secondary tumor-like proliferating growths are formed in various organs.

Experiments upon Replantation of the Brain-substance.—SALTYKOW (*Arch. f. Psychiatrie,* Band xl, Heft 2) has excised and replanted successfully small portions of the cortex of the brain in forty young rabbits, in order to study the changes that take place in the isolated portion of brain-substance and in the surrounding nerve tissue. The operation, when done carefully and with rigid technique, may be accomplished without much injury to the health of the animal. The rabbits were killed at different periods after the operation. In the successful replantations, no infection occurred either in the meninges or the brain-substance. One might expect the replanted piece of brain-substance to undergo softening; but, on the contrary, it heals as any other tissue. The cellular elements of the replanted tissue remain for a time intact, show progressive changes, and finally the specific elements die. Well-preserved ganglion cells were seen on the eighth day after replantation. From the eighth hour on they showed progressive changes, noticeable in the swelling of the protoplasm, enlargement of the nucleus, and increase of the chromatin and nucleoli. On the eighth day definite mitoses were seen. The glia cells showed numerous mitoses on the seventh day, and were still present on the twentieth day after replantation. The bloodvessels of the replanted tissue presented, from the second and third days, abundant mitotic growth of the endothelial cells and of the perivascular cells. Later, the vessels connected with the newly formed vessels of the surrounding tissue. The nerve fibers degenerated or disappeared rapidly from the replanted tissue. The encapsulating connective tissue and that arising about the newly formed bloodvessels gradually replaced the replanted bit of brain-matter, remains of which could be found as granular masses on the seventy-eighth day after operation. Outside of this connective-tissue scar a zone of glia cells formed. The author considers that the much disputed question as to whether the ganglion cells of warm-blooded animals are capable of proliferation under suitable stimulus can be answered in the affirmative; for in the neighborhood of the wound, he saw, two to six days after operation, numerous mitoses in the ganglion cells, with division of the protoplasm. Newly formed nerve fibers were seen in the neighborhood of the wound, from the twenty-fifth day on, growing into the gliomatous scar. The author considers that the "Körnchenzellen" arise primarily from the perivascular cells, and finally, from preformed connective-tissue cells.

Cultivation of Treponema Pallidum de Schaudinn.—LEURIAUX and GEETS (*Cent. f. Bakt. u. Parasit.,* Orig., 1906, Band xli, p. 684) claim to have procured pure cultures of these spirochetæ from the cerebrospinal fluid of cases of secondary syphilis. In forty-two lumbar punctures they have obtained growths of the organisms three times. In thirty-eight cases the fluid was sterile, and once it was contaminated. One part of neutral bouillon was added to two parts of spinal fluid, and the mixture placed in the thermostat at 37° C. for three or four days. The liquid was then centrifugated for twenty minutes, and the slight sediment smeared over coagulated pork serum. The growth appears at the end of two to four days, as an ivory-white moist film. In this medium the progress of the growth was studied. Smears made from young cultures showed, not a spirocheta, but small, oval bodies, which, if stained with the Giemsa method, corresponded very closely in form and dimensions to Cytoryctes luis of Siegel. During the development of the organism the form changes to one resembling a trypanosome, and after a new series of modifications assumes the form of the Spirocheta pallida.

The Relationship between Tuberculosis of Man and of Animals.—The question of the communicability of bovine tuberculosis to man is discussed again and at length by RABINOWITSCH (*Arbeiten a. d. path. Inst. z. Berlin*, 1906, p. 365), who for some time has been interested in this problem. She has made a comparative study of thirty strains of tubercle bacilli. Twenty-five of these strains were isolated from twenty cases of tuberculosis in man, while five were obtained from perlsucht infections in animals. The organisms could not be differentiated from their morphological appearances, nor from their relative pathogenic action toward guinea-pigs, for which animals they were exceedingly virulent. The differentiating points rested in their biological characteristics, and their pathogenic action toward rabbits. On culture media the bacillus of human type grows much more rapidly and luxuriantly than the bacillus of perlsucht, while the latter type of organism possesses a much higher grade of virulence for rabbits than the human bacillus. Rabinowitsch considers that these differences are sufficient to warrant a separation of the two types of bacilli, though the question as to how widely removed they are is still questionable. The important result of the work comes out in the classification of the organisms obtained from the cases of human tuberculosis. From two of these twenty cases bacilli were obtained which had all the characteristics of the cultures from the tuberculosis of cattle. One of these was a case of primary intestinal tuberculosis, one a case of feeding tuberculosis in a child. Of six atypical strains which did not correspond with the human type and yet were not typical of the bovine type, two were from cases of primary intestinal tuberculosis, one from a questionable case of feeding tuberculosis, and three from cases of miliary tuberculosis. Besides these strains, a bacillus was obtained from the caseous nodules in the spleen from a case of miliary tuberculosis, which, in its cultural characteristics and pathogenic properties (extreme virulence toward chickens, particularly in feeding) should be considered the bacillus of avian tuberculosis. From the remaining eleven cases typical bacilli of human tuberculosis were obtained. Rabinowitsch concludes that the bacillus of bovine tuberculosis is pathogenic for man and may give rise to extensive lesions and a fatal infection.

Etiology and Diagnosis of Hydrophobia.—WILLIAMS and LOWDEN (*Jour. Infect. Diseases*, 1906, iii, 452) present an extensive study of the "Negri bodies" and their relation to hydrophobia. From a study of numerous infected animals, dogs, cats, and human beings, they find that the three tests used, namely, a search for the "bodies" in smears, a search in hardened tissues, and by inoculation, correspond to one another as to diagnostic results, and the bodies were always found when the biological test was positive. In all animals inoculated from the